

**THE SPECIES OF CHRYSCEIDA  
(HYMENOPTERA, EURYTOMIDAE).**By BARNARD D. BURKS<sup>1</sup>, Washington, D. C.

The genus *Chryseida* Spinola includes several species of relatively large eurytomids in all of which the body has brilliant metallic coloration. As all other species in the family Eurytomidae have dull yellow, brown, or black coloration, this metallic color alone will serve to distinguish the species of *Chryseida* generically from the others. *Chryseida* is not, however, an artificial group characterized only by this one rather superficial attribute. This genus has a large number of significant generic characters which are summarized below.

Most of the species of *Chryseida* are restricted to the Neotropical region, but two of them are found as far north as southern Texas. Two species of this genus have been reared from bruchids, and it is possible that all the species have this habit. There is, however, a somewhat questionable record of one species having been reared from a cerambycid.

This paper contains a key to the eight previously known species, and, in addition, two new species are described. I have studied the types of *inopinata* Brues, *acuciventris* Ashmead, and *aurata* Ashmead, which are deposited in the U. S. National Museum collection. Ashmead redescribed *cyanca* (Fabricius), and I am following his identification. His material of it is preserved in the National Museum collection. Mr. G. J. Kerrich, Commonwealth Institute of Entomology, British Museum (Natural History), has kindly sent me descriptions of the types of *aqualis* (Walker) and *amazonica* Westwood. I have not seen the types of *super-cilliosa* Spinola, *pachymeri* Schrottky, or *claritarsis* Strand. The disposition of the types of these species has been taken from Horn and Kahle (1935-37, Ent. Beihefte, v. 2-4, 536 p.), and these have been placed in my key from their descriptions.

Genus *Chryseida* Spinola

*Chryseida* Spinola in Guérin-Ménéville, 1840, Revue Zool., 3:18; Spinola, 1840, Mag. de Zool, 10 (1ns., 41-43): 8; Westwood, 1874, Thesaurus Ent. Oxon., p. 140; Ashmead, 1894, Amer. Ent. Soc. Trans., 21: 323; Ashmead, 1895, Ent. Soc. Washing-

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ton Proc., 3: 106; Dalla Torre, 1898, Cat. Hym., v. 5, p. 352; Ashmead, 1904, Carnegie Mus. Mem., 1: 261, 262, 370, 461; Brues, 1907, Wisc. Nat. Hist. Soc. Bull., 5: 104; Schmiedeknecht, 1909, Gen. Ins., fasc. 97, p. 134, 135, 136; Gahan and Fagan, 1923, U. S. Natl. Museum Bull. 124, p. 33; Peck in Muesebeck and others, 1951, U. S. Dept. Agr. Monog. 2., p. 574. Type: *Chryseida superciliosa* Spinola; monotypic.

The following combination of characters will distinguish the members of this genus from all other members of the family Eurytomidae:

Head and thoracic notum with umbilicate punctation; body metallic blue, blue-green, or green, often marked with red, copper, bronze, or brassy color; a pair of carinae or low laminae on frons running parallel with and close to inner eye margins; anterior ocellus located in scrobe cavity; cheeks carinate laterally; antennal funicle with 5 segments, club composed of 3 almost completely fused segments. Each anterior coxa with a deep, oblique channel on its anterior face for the reception of the ventral margin of the head; parapsidal furrows complete; submarginal vein 3 to 6 times as long as marginal vein, postmarginal and marginal veins usually equal in length, postmarginal sometimes the longer, stigmal slightly shorter or equal to marginal. Surface of propodeum lying at angles of from  $70^{\circ}$  to  $85^{\circ}$  to longitudinal axis of thorax; petiole of female varying from as long as wide to twice as long as wide, male petiole twice or more as long as wide; gaster more or less compressed, more strongly so in the male than in the female, and approximately as long as the thorax; ovipositor directed straight posteriorly and not markedly exerted.

#### KEY TO SPECIES

1. Thorax and abdomen uniformly dark metallic blue or blue-green ..... *cyanea* (Fabricius)  
 Thorax and abdomen uniformly metallic green or part-colored, or thorax blue-green and gaster the same color with bronzy or brassy cross-stripes ..... 2
2. Fore wing partly or completely infumate with brown or yellow low ..... 3  
 Fore wing hyaline ..... 4
3. Fore wing shaded with brown on disc posterior to stigmal and postmarginal veins; hind femur uniformly bright, brownish red ..... *inopinata* Brues  
 Fore wing completely shaded with light yellow, this color

- slightly more intense just posterior to marginal and post-marginal veins; hind femur purplish bronze, red-brown at apex ..... *aequalis* (Walker)
4. Pronotum and scutellum metallic blue-green, praescutum and scapulae brassy red or copper colored ..... 5  
 Entire thoracic notum metallic blue-green or green ..... 6
5. Praescutum and scapulae brassy red .... *superciliosa* Spinola  
 Praescutum and scapulae copper colored .....  
 ..... *pachymeri* Schrottky
6. Thoracic notum metallic blue-green ..... 7  
 Thoracic notum metallic green ..... 8
7. Length less than 5 mm.; femora and tibiae red .....  
 ..... *claritarsis* Strand  
 Length over 6 mm.; femora and tibiae tan .....  
 ..... *aeneiventris* Ashmead
8. Marginal vein slender; scrobe cavity wide apically, one and one-half times as wide as parascrobal space *aurata* Ashmead  
 Marginal vein thickened; scrobe cavity narrowed apically, three-quarters to four-fifths as wide as parascrobal space .. 9
9. Propodeum with a vertical carina located in a median, smooth space ..... *gramma* n. sp.  
 Propodeum strongly rugulose medially, lacking a vertical carina ..... *bennetti* n. sp.

*Chryseida cyanea* (Fabricius)

*Chalcis cyanea* Fabricius, 1805, Syst. Piez., p. 164.

*Chryseida cyanea* (Fabricius) Ashmead, 1894, Amer. Ent. Soc. Trans., 21: 323; Ashmead, 1895, Ent. Soc. Washington Proc., 3: 106; Dalla Tore, 1898, Cat. Hym., v. 5, p. 352; Ashmead, 1904, Carnegie Mus. Mem., 1: 461; Schmiedeknecht, 1909, Gen. Ins., fasc. 97, p. 137.

Type.—Location of type unknown; I follow Ashmead's identification of this species.

Type locality.—South America.

Distribution.—Brazil.

*Chryseida inopinata* Brues

*Chryseida inopinata* Brues, 1907, Wisc. Nat. Hist. Soc. Bull., 5: 103; Crawford, 1913, U. S. Natl. Mus. Proc., 46: 345; Peck in Muesebeck and others, 1951, U. S. Dept. Agr. Monog. 2, p. 574.

Type.—U.S.N.M. no. 42706; originally deposited in the Brooklyn Museum.

Type locality.—Brownsville, Texas.

Distribution.—Texas, northern Mexico.

Host.—Crawford (1913, loc. cit.) published a note that this species had been reared from the cerambycid *Oncideres putator* Thom., at Brownsville, Texas, under Chittenden no. 1921. This host (probably a misidentification of *C. pustulata* Lec.—*putator* is a Brazilian species) evidently developed in woody legumes such as *Acacia*, *Leucaena*, and *Mimosa*. It has not, unfortunately, been possible to find in the National Museum collection the host material associated with the parasites. It may be that the specimens of *inopinata* actually emerged from bruchids infesting the seeds of the legumes in which the *Oncideres* developed, rather than from the *Oncideres* themselves.

*Chryscida aequalis* (Walker), new combination

*Epistenia aequalis* Walker, 1862, Ent. Soc. London Trans., ser. 3, 1: 392; Dalla Torre, 1898, Cat. Hym., v. 5, p. 177; Ashmead, 1904, Carnegie Mus. Mem., 1: 485; Schmiedeknecht, 1909, Gen. Ins., fasc. 97, p. 159.

*Chryscida amazonica* Westwood, 1874, Thesaurus Ent. Oxon., p. 140; Dalla Torre, 1898, Cat. Hym., v. 5, p. 352; Ashmead, 1904, Carnegie Mus. Mem., 1: 461; Schmiedeknecht, 1909, Gen. Ins., fasc. 97, p. 137. **New synonymy.**

I am indebted to Mr. E. F. Riek, C. S. I. R. O., Canberra, Australia for the information that *Epistenia aequalis* Walker, long listed in the Cleonymidae, is actually a species of *Chryscida* and is the same species as *Chryscida amazonica* Westwood.

Type:—British Museum (Natural History), 5.902.

Type locality.—São Paulo, Brazil.

Distribution.—States of Amazonas and São Paulo, Brazil.

*Chryscida superciliosa* Spinola

*Chryscida superciliosa* Spinola in Guérin-Méneville, 1840, Revue Zool., 3: 18; Spinola, 1840, Mag. de Zool., 10 (Ins., 41–43): 12; Westwood 1874, Thesaurus Ent. Oxon., p. 140; Ashmead, 1894, Amer. Ent. Soc. Trans., 21: 323; Dalla Torre, 1898, Cat. Hym., v. 5, p. 352; Ashmead, 1904, Carnegie Mus. Mem., 1: 261, 462; Schmiedeknecht, 1909, Gen. Ins., fasc. 97, p. 137.

Type.—Possibly in the Turin University Zoological Museum.

Type locality.—French Guiana, interior.

Distribution.—French Guiana; Ashmead (1904) recorded this species from British Guiana, but that apparently was an error.

*Chryseida pachymeri* Schrottky

*Chryseida pachymeri* Schrottky, 1906, *Zeitschr. für wiss. Insektenbiol.*, 2: 101.

Type.—Destroyed.

Type locality.—Paraguay.

Distribution.—Paraguay.

Host.—*Gibbobruchus polycoccus* (Föhr).

*Chryseida claritarsis* Strand

*Chryseida claritarsis* Strand, 1911, *Fauna Exotica*, Jahrgang 1, nos. 2-3, p. 14.

Type.—Probably in the Deutsches Entomologisches Institut, East Berlin, Germany.

Type locality.—Pachitea River, Perú.

Distribution.—Perú.

*Chryseida aeneiventris* Ashmead

*Chryseida aeneiventris* Ashmead, 1909, *Carnegie Mus. Mem.*, 1: 462, pl. 33, fig. 4; Schmiedeknecht, 1909, *Gen. Ins.*, fasc. 97, p. 137.

In the figures accompanying the original descriptions of this species and *Bephrata striatipes* Ashmead, the legends for the two were reversed; the figure given as *B. striatipes* actually is a drawing of *aeneiventris*. This figure, however, shows the abdominal petiole as being considerably larger than it is in the type specimen of *aeneiventris*.

Type.—U.S.N.M. no. 25513; originally deposited in the Carnegie Museum, Pittsburgh.

Type locality.—Santarem, Brazil.

Distribution.—Santarem and Chapada, Brazil.

*Chryseida aurata* Ashmead

*Chryseida aurata* Ashmead, 1894, *Linn. Soc. London, Zool., Jour.*, 25: 150; Dalla Torre, 1898, *Cat. Hym.*, v. 5, p. 352; Schmiedeknecht, 1909, *Gen. Ins.*, fasc. 97, p. 137.

Type.—U.S.N.M. no. 2429.

Type locality.—Leeward Side, St. Vincent, British West Indies.

Distribution.—St. Vincent, British West Indies.

**Chryseida gramma** n. sp.

Female.—Length, 3.5 mm. Head dark metallic green with a faint, polished brassy cast, antennal scape tan at base, shading to very dark brown apically, pedicel and funicle dark brown, almost black, club lighter brown; thorax, propodeum, and all coxae dark metallic green, femora red-brown with dark metallic green shading in the middle, apices yellow; tibiae with bases and apices yellow, median area of each red-brown and a minute black area at middle of outer surface of fore and mid tibia; tarsi yellow; tegulae black; wings hyaline with tan venation; petiole and gaster black, shining.

Head and thorax sparsely clothed with short, decumbent, silvery pubescence; each posterior coxa with dense, stout pubescence along dorso-lateral and posterior margins, femora with finer pubescence, tibiae with denser, stout pubescence; propodeum with dense, stout pubescence laterally, hair becoming finer toward meson, median groove bare; exposed portions of gastral tergites 5–7 densely covered with short, flattened hair; other gastral tergites bare.

Head in anterior aspect, measured across eyes, one and one-third times as wide as high, in dorsal aspect one and one-eighth times as wide as thorax across tegulae; height of compound eye twice as great as width of malar space; an obscure carina paralleling eye on ventral half of outer margin and extending the entire length of the inner margin, terminating beside lateral ocellus; antennal pedicel short, only one-third as long as first funicle segment, second through fourth funicle segments equal in length and each four-fifths as long as the first, fifth segment slightly wider than others and five-sixths as long as fourth, club one and one-half times as long as fourth segment. Prepectus sub-triangular, its surface smooth dorsally, minutely shagreened ventrad; tegula smooth; femoral furrow of mesepisternum with numerous very obscure, parallel rugae formed by coalescence of punctures; submarginal vein three and one-third times as long as marginal vein, post-marginal and marginal veins equal in length, stigmal vein four-fifths as long as marginal; median lobe of metanotum with a pair of oblique rugae extending ventrad from meson of anterior margin. Propodeum with a smooth median area, this with a vertical carina on meson, lateral areas umbilicate-punctate; surface of propodeum lying at a  $75^\circ$  angle to longitudinal axis of thorax; petiole with dorsal surface flat, minutely shagreened, petiole three-fifths as long as posterior coxa; gaster slightly longer than thorax and propodeum combined, fourth gastral tergite as long as three basal tergites

combined.

Male.—Unknown.

Type.—American Museum of Natural History.

Type locality.—Grand Bahama Isl.

Described from one specimen collected on Pine Ridge, Grand Bahama Isl., May 13, 1953. Van Voast—A.M.N.H. Bahama Island Expedition, E. B. Hayden.

### ***Chryseida bennetti*, n. sp.**

Female.—Length 2.5–4.0 mm. Head dark metallic green, some specimens darkened on vertex, antennal scape with basal two-thirds to four-fifths tan, apex dark brown, pedicel and flagellum dark brown; thorax, propodeum and all coxae metallic green, median area of thoracic dorsum in some specimens darkened; femora and tibiae red-brown shading to yellow apically (in some specimens femora dark brown medially), tarsi yellow; tegulae tan to brown; wings hyaline with tan venation; petiole and gaster black, shining.

Pubescence as in *gramma*, except that gastral pubescence is slightly less dense.

Head in anterior aspect one and two-fifths times as wide as high, in dorsal aspect as wide as thorax across tegulae; height of compound eye twice as great as width of malar space; a moderately strong carina paralleling eye on ventral half of outer margin and extending the entire length of the inner margin, terminating at lateral ocellus; antennal pedicel one-half as long as first funicle segment, second through fourth segments equal in length and each five-sixths as long as first, fifth nine-tenths as long as fourth, club one and one-half times as long as fourth funicle segment. Prepectus subtriangular, almost entirely smooth, only small area near ventral angle shagreened, median area of prepectus depressed; tegula faintly reticulated, almost smooth, femoral furrow with parallel rugae more strongly developed than in *gramma*; submarginal vein five times as long as marginal, stigmal and marginal equal in length, postmarginal one and one-half times as long as marginal; median lobe of metanotum with a single arcuate ruga originating at one postero-lateral angle, extending to or nearly to anterior margin and continuing to other postero-lateral angle. Propodeum with entire surface umbilicate-punctate, punctures in median area slightly irregular; surface of propodeum lying at or very near a 90° angle to longitudinal axis of thorax, petiole with dorsal surface flat, minutely shagreened, length of petiole equal to

that of hind coxa; gaster as long as thorax; third and fourth gastral tergites sub-equal in length and each approximately as long as first and second tergites combined.

Male.—Unknown.

Type.—U.S.N.M. no. 62904.

Type locality.—Paradise Mt., Trinidad, B.W.I.

Described from 26 female specimens as follows: Holotype, Paradise Mt., Trinidad, B.W.I., March 1952, reared from *Bruchus* sp. in pigeon peas, no. 241, F. D. Bennett; 3 paratypes intercepted at the D. C. Inspection Station in seeds of *Rhynchosia* from Mexico, May 20, 1953, H. Y. Gouldman; 22 paratypes, Brownsville, Texas, March 1921, reared from seeds of *Havardia brevifolia* infested with *Microbruchus* sp., J. C. Bridwell.

## GEOGRAPHIC VARIATION IN THE BLISTER BEETLE *LYTTA BIGUTTATA* (COLEOPTERA, MELOIDAE).<sup>1</sup>

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*Lytta biguttata* is one of the most abundant and widely distributed species of the genus *Lytta* in North America. As has been long recognized, the color pattern of the species is highly variable, but no comprehensive study of this variation has been made previously. When analyzed this variation is found to consist of a wide range of individual variation superimposed on an even wider range of geographic variation.

The present paper is being published prior to my revision of the North American species of *Lytta* in order that the included information as well as the name of one of the subspecies will be available to others now engaged in a project involving *biguttata*. A description of the structural features of the species, together with additional synonymy, host plant information, and more detailed locality data for the subspecies will appear in my revision.

### *Lytta biguttata* LeConte

In all races the ground color of the pronotum and elytra is yellow-orange, the elytra being paler; the tarsi are black or brown.

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<sup>2</sup> Illinois Natural History Survey.